C 04/05/78

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DOCTYPE: LETTER NOTARIZED: NO

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UBJECT:
ICENSEE EVENT REPT (RO 50-269/78-003) ON 02/22/78 CONCERNING ATTEMPT TO
TART KEOWEE HYDRO UNIT 2, SOURCE OF AUXILIARY PWR FOR SUBJECT FACILITY,
AILIED DUE TO AN INOPERABLE FIELD FLASHING BREAKER...W/ATT LER 78-003,
8-029 & 78-001.

LANT NAME: OCONEE - UNIT 1
OCONEE - UNIT 2
OCONEE - UNIT 3

REVIEWER INITIAL: XJM
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CONTROL NBR: 780950031

********** THE END **********

A004

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

March 23, 1978

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Suite 1217
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

RE: Oconee Units 1, 2, and 3
Docket No. 50-269, -270, and -287

Dear Mr. O'Reilly:

Pursuant to Sections 6.2 and 6.6.2 of the Oconee Nuclear Station Technical Specifications, please find attached Reportable Occurrence Report RO-269/78-3.

Also attached are revised Licensee Event Reports submitted on two similar occurrences reported in Reportable Occurrence Reports RO-269/77-29 and RO-269/78-1, originally transmitted by my letters of January 18, and February 3, 1978, respectively.

Very truly yours,

William O. Parker, Jr.

KRW/pt

Attachment

cc: Director, Office of Management Information
and Program Control

A002
S
1/1

DUKE POWER COMPANY
OCONEE UNIT 2

Report Number: RO-269/78-3

Report Date: March 23, 1978

Occurrence Date: February 22, 1978

Facility: Oconee Nuclear Station, Seneca, South Carolina

Identification of Occurrence: Keowee Hydro Unit 2, Field Flashing Breaker Inoperable

Conditions Prior to Occurrence: Unit 1 100% FP
Unit 2 100% FP
Unit 3 100% FP

Description of Occurrence:

At 1750, on February 22, 1978, when an attempt was made to start Keowee Hydro Unit 2, the unit's field flashing breaker failed to close. The unit was therefore inoperable, contrary to the requirements of Oconee Nuclear Station Technical Specification 3.7.1. The unit was started and successfully operated at 1752. The breaker and controls, wires and contacts within the breaker were inspected with no abnormalities discovered. The unit has successfully started on several subsequent occasions.

This type of incident has occurred on two previous occasions, which were reported in Reportable Occurrence Reports RO-269/77-29, and RO 269/78-1, transmitted by my letters of January 18, and February 3, 1978 respectively.

Apparent Cause of Occurrence:

The apparent cause of the incident was initially identified as a faulty relay within the field flashing breaker control system. The apparently faulty relay was replaced, along with another relay that had been arcing. After relay replacement, and during the investigation of this report, the breaker failed to operate again. Therefore, the exact cause of the breaker malfunction has not yet been determined. The breaker system is continuing to be observed to determine the cause of the incident.

Analysis of Occurrence:

The failure of the breaker to close caused Keowee Unit 2 to become temporarily inoperable. Two minutes after the initial unsuccessful attempt, the field flashing breaker successfully operated making Keowee Unit 2 fully operable. Throughout this period, the second Keowee Hydro unit was fully operable and available to supply emergency power to the station if required. The health and safety of the public were not endangered.

Corrective Action

Initially an inspection of the breaker and its controls was made with no defective components discovered.

During the investigation of this report two relays in the field flashing breaker control circuit were replaced. An extensive investigation is continuing in this area of concern to correct the breaker control system faults.

NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

Line	Field	Value
01	Licensee Code (2)	S C N E E 1
	License Number (3)	0 0 - 0 0 0 0 0 - 0 0
	License Type (4)	4 1 1 1 1
	CAT (5)	
CON'T 01	Report Source (6)	L
	Docket Number (7)	0 5 0 0 0 2 6 9
	Event Date (8)	0 2 2 2 7 8
	Report Date (9)	0 3 2 3 7 8

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 At 1750 on February 22, 1978, during normal operation, Oconee attempted to
03 start Keowee Hydro Unit 2 which is a source of auxillary power for the Oconee
04 Nuclear Station. The unit failed to start due to an inoperable field flashing
05 breaker. The unit started on the second and on subsequent attempts. Keowee
06 Unit 1 and other sources of auxiliary power for the station were available if
07 needed so that no loss of emergency power was experienced. Thus public health
08 and safety were not endangered.

09	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
	E E	X	X	Z Z Z Z Z Z	Z	Z

(17) LER/RO Report Number	Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
	7 8	—	0 0 3	/	0 3	L	—	0

Action Taken (18)	Future Action (19)	Effect on Plant (20)	Shutdown Method (21)	Hours (22)	Attachment Submitted (23)	NPRD-4 Form Sub. (24)	Prime Comp. Supplier (25)	Component Manufacturer (26)
X	A	Z	Z	0 0 0 0	Y	Y	L	Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The breaker and it's control system were initially inspected with no
11 apparent abnormalities discovered. During subsequent investigations the
12 breaker failed on three other occasions. Faulty relays were at first suspect
13 but the third failure occurred after two relays were replaced. The apparent
14 cause has not been determined but extensive investigation is continuing.

15	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
	E	1 0 0	NA	A	Operator Observation

16	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
	Z	Z	NA	NA

PERSONNEL EXPOSURES

17	Number (37)	Type (38)	Description (39)
	0 0 0	Z	NA

PERSONNEL INJURIES

18	Number (40)	Description (41)
	0 0 0	NA

LOSS OF OR DAMAGE TO FACILITY (43)

19	Type (42)	Description
	Z	NA

PUBLICITY

20	Issued (44)	Description (45)	NRC USE ONLY
	N	NA	

NAME OF PREPARER K. R. Wilson

PHONE: (704) 373-8197

NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01	LICENSEE CODE: S C N E E 1 (2) LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) LICENSE TYPE: 4 1 1 1 1 (4) CAT: (5)
CON'T 01	REPORT SOURCE: L (6) DOCKET NUMBER: 0 5 0 0 0 2 6 9 (7) EVENT DATE: 1 2 1 9 7 7 (8) REPORT DATE: 0 3 2 3 7 8 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During normal operation Keowee Hydro Unit 2 failed to start on initiation
03 from Oconee control room. Since Keowee 2 is a source of auxiliary power
04 for the Oconee station (Units 1, 2, and 3) this is reportable under
05 T. S. 6.6.2.1.b.(2). The unit started normally on second and subsequent
06 attempts.
07
08

09	
SYSTEM CODE	E E (11)
CAUSE CODE	X (12)
CAUSE SUBCODE	X (13)
COMPONENT CODE	Z Z Z Z Z Z (14)
COMP. SUBCODE	Z (15)
VALVE SUBCODE	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
7 7	—	0 2 9	/	0 3	L	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
X (18)	A (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	L (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The Field Flashing Breaker on the generator failed to close on first attempt.
11 The breaker was verified as operable by subsequent operation and visual
12 examination. Normal inspection and servicing resulted in no further correc-
13 tive action. Extensive investigation is continuing as of March 23, 1978.
14

15	FACILITY STATUS: E (28)	% POWER: 1 0 0 (29)
	OTHER STATUS (30): NA	METHOD OF DISCOVERY: A (31)
	DISCOVERY DESCRIPTION (32): Operator Observation	
16	ACTIVITY RELEASED: Z (33)	CONTENT OF RELEASE: Z (34)
	AMOUNT OF ACTIVITY (35): NA	LOCATION OF RELEASE (36): NA
17	PERSONNEL EXPOSURES NUMBER: 0 0 0 (37) TYPE: Z (38)	DESCRIPTION (39): NA
18	PERSONNEL INJURIES NUMBER: 0 0 0 (40)	DESCRIPTION (41): NA
19	LOSS OF OR DAMAGE TO FACILITY (43) TYPE: Z (42)	DESCRIPTION: NA
20	PUBLICITY ISSUED: N (44)	DESCRIPTION (45): NA

NRC USE ONLY

NAME OF PREPARER: K. R. Wilson

PHONE: (704) 373-8197

UPDATE REPORT - PREVIOUS REPORT 2/28/78

NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | LICENSEE CODE: S C N E E 1 (2) | LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3) | LICENSE TYPE: 4 1 1 1 1 (4) | CAT (5)

CON'T 0 1 | REPORT SOURCE: L (6) | DOCKET NUMBER: 0 5 0 0 0 2 6 9 (7) | EVENT DATE: 0 1 0 5 7 8 (8) | REPORT DATE: 0 3 2 3 7 8 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During normal operation Keowee Hydro Unit 2 failed to start on initiation
0 3 from Oconee control room. Since Keowee 2 is a source of auxiliary power
0 4 for the Oconee station (Units 1, 2, and 3) this is reportable under
0 5 T. S. 6.6.2.1.b.(2). The unit started normally on second and subsequent
0 6 attempts.
0 7
0 8

0 9 | SYSTEM CODE: E E (11) | CAUSE CODE: X (12) | CAUSE SUBCODE: X (13) | COMPONENT CODE: Z Z Z Z Z Z (14) | COMP. SUBCODE: Z (15) | VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER | EVENT YEAR: 7 8 | — | SEQUENTIAL REPORT NO.: 0 0 1 | / | OCCURRENCE CODE: 0 3 | REPORT TYPE: L | — | REVISION NO.: 2

ACTION TAKEN: X (18) | FUTURE ACTION: A (19) | EFFECT ON PLANT: Z (20) | SHUTDOWN METHOD: Z (21) | HOURS (22): 0 0 0 0 | ATTACHMENT SUBMITTED: Y (23) | NPRD-4 FORM SUB.: Y (24) | PRIME COMP. SUPPLIER: L (25) | COMPONENT MANUFACTURER: Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The Field Flashing Breaker (DB-26) on the generator failed to close on first
1 1 attempt. The breaker was verified as operable by subsequent operation and
1 2 visual examination. Inspection and servicing resulted in no further correc-
1 3 tive action. Extensive investigation is continuing as of March 23, 1978.
1 4

1 5 | FACILITY STATUS: E (28) | % POWER: 1 0 0 (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: A (31) | DISCOVERY DESCRIPTION (32): Operator Observation

1 6 | ACTIVITY RELEASED: Z (33) | CONTENT OF RELEASE: Z (34) | AMOUNT OF ACTIVITY (35): NA | LOCATION OF RELEASE (36): NA

PERSONNEL EXPOSURES
1 7 | NUMBER: 0 0 0 (37) | TYPE: Z (38) | DESCRIPTION (39): NA

PERSONNEL INJURIES
1 8 | NUMBER: 0 0 0 (40) | DESCRIPTION (41): NA

LOSS OF OR DAMAGE TO FACILITY (43)
1 9 | TYPE: Z (42) | DESCRIPTION: NA

PUBLICITY
2 0 | ISSUED: N (44) | DESCRIPTION (45): NA | NRC USE ONLY

NAME OF PREPARER K. R. Wilson PHONE: (704) 373-8197